

## **ECOSYSTEM-BASED MANAGEMENT INDICES AND INFORMATION**

### ***Ecosystem Goal: Maintain Diversity***

#### **Time Trends in Non-Target Species Catch**

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In addition to prohibited and target species catches, groundfish fisheries also catch non-target species (Figure 113). There are four categories of non-target species: 1.) forage species (gunnells, stichaeids, sandfish, smelts, lanternfish, sandlance), 2.) non-specified species (grenadiers, crabs, starfish, jellyfish, unidentified invertebrates, benthic invertebrates, echinoderms, other fish, birds, shrimp), 3.) other species (sculpins, unidentified sharks, salmon sharks, dogfish, sleeper sharks, skates, octopus, squid), and 4.) HAPC (seapens/whips, sponges, anemones, corals, tunicates).

In the BSAI, non-target catch was primarily comprised of non-specified and other species categories (Figure 113). Jellyfish, starfish, grenadiers, and other fish dominated the non-specified group and skates, sculpins and squid dominated the other species category. The non-target catch in the GOA also consisted primarily of non-specified and other species categories. Grenadiers were the dominant fish caught in the non-specified category in all years; other fish were also important in 1998. The other species category in the GOA consisted primarily of skates, but also included sculpins, dogfish, and unidentified sharks.

HAPC biota and forage species are also presented in Figure 113, but are small relative to the other categories of non-target catch. HAPC biota catch estimates range from 922 to 2548 t (primarily tunicates) in the BSAI, and from 27 to 46 t, (primarily anemones) in the GOA. Non-target forage catches consist primarily of smelts and range from 24 to 83 t in the BSAI and from 27 to 541 t in the GOA.

Most non-target catch is discarded as well as some target catch. Non-target and target discard estimates are comparable in the GOA. BSAI discards of non-target species are more than double the GOA discards of non-target species. In the BSAI, however, non-target discard estimates are less than one-third of the target discard estimates. It should be noted that although the blend estimates are the best available estimates of discards, they are not necessarily accurate because they are based on visual observations of observers rather than data from direct sampling.

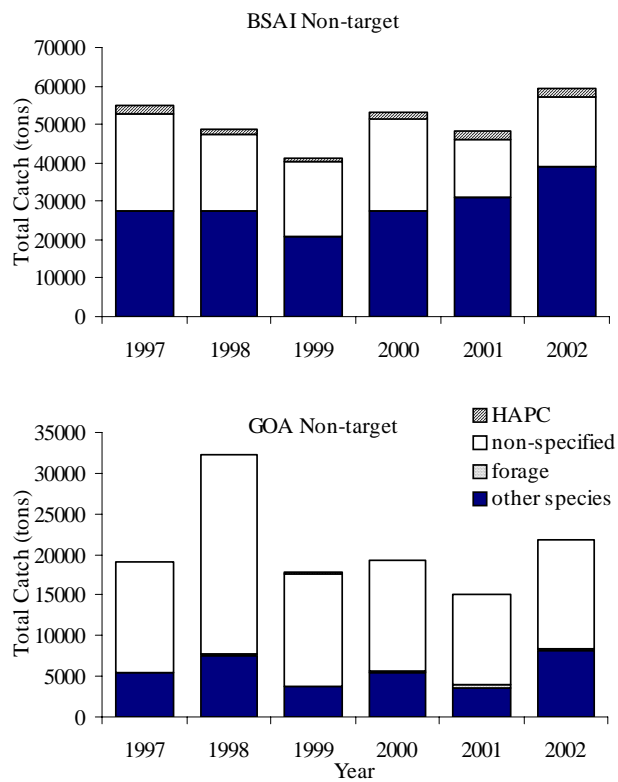


Figure 113. Total catch of non-target species (tons) in the BSAI and GOA areas by groundfish fisheries.